

REMARKS

Claims 1-2 and 4-21 are pending in the present Application with claims 11-18 and 20-21 having been withdrawn and claim 3 having been canceled. Claims 1 and 6 have been amended. Claims 1-2, 4-10, and 19 are presently under review. Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

Claim Amendments

Claims 1 and 6 have been amended to better define the invention. Support for this amendment can be found in Applicant's Specification paragraphs [0023] and [0016] and Table (page 11).

Claim Rejections Under 35 USC 102(b)

Claims 1-2, 4-10, and 19 have been rejected under 35 USC 102(b), as being anticipated by Shaw US4039330. Applicant respectfully traverses this rejection.

Amended claim 1 recites a nickel-containing alloy comprising: about 1.5 to about 4.5 weight percent aluminum; about 1.5 to about 4.5 weight percent titanium; up to about 3 weight percent niobium; about 14 to about 28 weight percent chromium; up to about 0.2 weight percent zirconium; with the remainder being nickel, ((and)) wherein the atomic ratio of aluminum to titanium is about 0.5 to about 1.5, with the proviso that the nickel-containing alloy is substantially devoid of tantalum.

Shaw describes a series of nickel-base alloys exhibiting good rupture strength and corrosion resistance. More specifically, Shaw describes a number of compositions containing nickel, chromium, cobalt, tungsten, molybdenum, titanium, aluminum, carbon, tantalum, niobium, zirconium, hafnium, boron, yttrium, lanthanum. (see Tables in Shaw). All of the compositions described by Shaw comprise tantalum (See abstract; column 1, lines 45-59; column 2, lines 54-64, lines 65-68; all samples in Tables 1-5).

Shaw does not disclose a nickel-containing alloy devoid of tantalum as recited in amended claim 1 and hence cannot anticipate the claimed invention. In fact, Shaw teaches away from considering a nickel-containing alloy devoid of tantalum. Column 4, lines 47-51, states that "alloys F and G, which contained only 0.2% tantalum, are considerably inferior in strength to alloys 11 and 12, which have higher tantalum contents but otherwise compositionally similar." Since Shaw teaches all compositions containing tantalum and suggests that tantalum improves strength (column 4, lines 44-51), one ordinary skill in the art would not be motivated to modify the alloys of Shaw to arrive at nickel-containing alloys devoid of tantalum. One of ordinary skill upon reading the cited reference would not seek to modify this reference to arrive at the claimed invention. Shaw does not suggest, teach, or motivate nickel-containing alloys devoid of tantalum.

In contrast, the inventors have clearly recognized the merits of nickel-containing alloys devoid of tantalum for high temperature applications (See, for example, Applicant's paragraphs [0016] and

Applicant's Example in paragraphs [0033]-[0037].) The comparative example including nickel-containing alloys with and without tantalum, in Table 1, shows that nickel-containing alloys devoid of tantalum show superior creep resistance properties. This is not mere optimization of the alloy composition. Further, for anticipating, the claimed compound has to be treated as a whole including its properties. Since nickel containing alloys with and without tantalum show distinct difference in property, they are not to be considered the same. Therefore, Shaw reciting tantalum containing nickel alloys does not anticipate nickel alloys devoid of tantalum. There is no indication, other than in Applicant's disclosure, of a nickel-containing alloy of the claimed composition. Applicant respectfully requests a withdrawal of the 35 USC 102(b) rejection over Shaw and an allowance of the claim1 and claims 2 and 4-10, and 19 that depend therefrom.

Should the Examiner believe that anything further is needed to place the application in better condition for allowance, the Examiner is requested to contact Applicant's undersigned representative at the telephone number below.

Respectfully submitted,

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